CLAIMS

1. An electronic control apparatus having a nonvolatile memory and a volatile memory that store control data for controlling a device, the electronic control apparatus comprising:

a controller that uses data stored in the volatile memory to perform calibration of the control data and performs a write of the data stored in the volatile memory into the nonvolatile memory, when the calibration is completed.

2. The electronic control apparatus of claim 1, wherein the controller stores the data in the nonvolatile memory to be calibrated into the volatile memory, when the calibration is started and uses the data stored in the volatile memory to perform calibration of the control data.

3. The electronic control apparatus according to claim 1-or-2, wherein the controller further:

identifies an address of the nonvolatile memory to be calibrated when the calibration is started;

assigns the same address as that of the nonvolatile memory to the volatile memory; and

preferentially executes data processing for the volatile memory during the calibration.

4. The electronic control apparatus according to any one of claims 1-through-3, further comprising:

a control register for controlling data in the nonvolatile memory; and

wherein the controller writes the address of the nonvolatile memory and calibrated control data into the control register when said calibration is completed; and

uses the address and calibrated control data written in the control register to execute a write into the nonvolatile memory.

5. The electronic control apparatus according to claim 4, further comprising:

an authority register for controlling the authority to permit use of the control register; and

wherein the controller:

      sets the authority register when a write into the volatile memory is executed; and

      clears the authority register after the write is completed.

6. The electronic control apparatus according to any one of claims 1 through 5, wherein:

the device includes a plurality of units;

the control data is stored in the nonvolatile memory corresponding to each of the units; and

the volatile memory has a storage capacity capable of storing control data corresponding to the unit to be calibrated.

7. The electronic control apparatus according to any one of claims 1 through 6, wherein:

the nonvolatile memory includes at least two or more storage blocks;

the write is executed for each storage block; and

when a write into one of the storage blocks is executed, another storage block is used to control the device.

If Applicant has overlooked any additional fees, or if any overpayment has been made, the Commissioner is hereby authorized to credit or debit Deposit Account 503079, Freescale Semiconductor, Inc.

Respectfully submitted,

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